FEDERAL-PROVINCIAL CROP INSURANCE REVIEW

DISCUSSION PAPER SUMMARY

The long version of the discussion paper is available on request.

MESSAGE TO PRODUCERS

This Federal-Provincial Review of the Crop Insurance Program is a further development of reviews conducted in the provinces of Alberta, Manitoba, Ontario and Quebec. It also builds on the Policy and Operational Guidelines for Crop Insurance approved by Ministers of Agriculture in July, 1988.

The attached discussion paper summary, distilled from a longer document, has been prepared as a vehicle for stimulating discussion and seeking concurrence on the content and schedule of program and legislative changes. It also contains ideas which might encourage consideration of further changes in the future.

The Review plan calls for discussions with producers during May and June. This timeframe for consulting with you is extremely limited and you may wish to advise us if you need more time for reflection. You should be aware, however, that this tight schedule is due to the fact that amendments to federal crop insurance legislation are currently targetted for the 1990 crop year, in order to deal with concerns that you have put forward.

The more pressing issues we must deal with relate to methods permitted in the Act for the determination of average yields and the request to expand the existing 80% limit of production coverage levels. At the same time, the federal government is intent on renegotiating cost sharing arrangements with several provinces.

The Federal-Provincial Review and Steering Committees look forward to receiving your views on the future of the Crop Insurance Program.

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1. INTRODUCTION

In July 1988, federal and provincial ministers considered and approved a set of Policy and Operational Guidelines relating to the future of crop insurance programs. At that time, the Federal Minister of Agriculture announced the federal government was willing to consider improvements to crop insurance legislation providing provinces were prepared to renegotiate existing cost-sharing arrangements.

On October 4, 1988 the three Federal Ministers responsible for Agriculture wrote to the Provincial Ministers of Agriculture regarding special drought assistance. They reiterated the federal position expressed at the July meeting and recommended that governments address producers' concerns about the existing Crop Insurance Program. An accelerated review, building on work which had been done to date in provincial studies, was proposed with a view to ensuring that amendments to legislation be in place in time for the 1990 crop year.

This paper has been prepared in order to facilitate discussions with provincial crop insurance boards, producer organizations, other government departments and other interested parties.

2. BACKGROUND

Responding to producer and government dissatisfaction with the level of crop loss protection provided by the permanent and ad hoc relief programs of the day, the federal government passed the Crop Insurance Act in 1959. The Act provided for the payment of federal contributions to provincial crop insurance schemes. The overall objective was to assist producers to protect themselves against some of the income losses that were related to production shortfalls resulting from uncontrollable natural hazards. The Crop Insurance Program was intended to be self-sustaining.

Since it was first passed in 1959, the Federal Crop Insurance Act has undergone several changes to deal with reinsurance, allowable coverage levels, extended coverage provisions for tree fruits and various modifications to cost sharing arrangements.

Crop insurance programs in the provinces have also been the subject of numerous changes. The specific provisions and features of schemes vary from province to province in accordance with local needs but provinces must remain within the limits of federal legislation and regulations to qualify for federal contributions.

Evaluations and reviews at the federal level and in the provinces of Alberta, Manitoba, Ontario and Québec have concluded that the Crop Insurance Program is generally effective in protecting farmers against weather related crop losses, but that certain improvements are still required. These are identified and discussed below under issues.

3. OVERVIEW OF CROP INSURANCE

A brief examination of how crop insurance works helps to understand the discussion of issues, and options for improvement which follow.

Crop Insurance Objectives

The objective of crop insurance is to provide insurance protection to farmers on an actuarially sound basis against crop losses caused by natural perils that cannot be reasonably controlled.

Crop production losses can result in short term shifts in resources which are not in the best interests of the agriculture industry over the longer term. Variability in crop production also causes variability in farm income. This has frequently led to pressure from producers for ad hoc government assistance to compensate for weather related production losses, particularly in times of major shortfalls. Ad hoc programs are unpredictable by nature, making budgetary planning difficult for governments. Similarly, producers do not know what they can expect in terms of support from one crop loss situation to another. A more sound approach for protecting against income variability related to production losses is provided through multi-peril crop insurance. However, because of the high risk associated with crop production in Canada, premiums must be set at a relatively high rate to ensure that the crop insurance programs are self-sustaining. If governments wish to reduce adverse resource adjustments and minimize the incidence of ad hoc payouts, it is reasonable that they would agree to partially subsidize premiums and program administration, so that crop insurance remains affordable to farmers and participation is encouraged. This approach has the effect of providing a more stable form of protection for farmers and ensures that they share in the costs of the program.

The few attempts by private companies to provide multi-peril crop insurance in North America have met with little success, premiums having been too high to attract a sufficient number of participants to pool risk efficiently. In the United States where private carriers administer crop insurance programs, government subsidies are still provided to keep programs self-sustainable. The U.S. Congress has repeatedly expressed concern that participation levels remain low in spite of government financial support and a major review of crop insurance is currently in progress.

Roles and Responsibilities

Federal involvement in crop insurance consists of contributions to provincial crop insurance schemes subject to specific terms and conditions. Currently, the federal government contributes fifty percent of the administration costs and twenty-five percent of the required premium costs in Québec and Newfoundland and fifty percent of the required premium costs in the other provinces where the provincial government pays for all of the administration costs.

The provinces are responsible for developing and administering crop insurance schemes and passing appropriate legislation. They submit their crop insurance schemes to the federal Minister of Agriculture for approval against the terms and conditions for contributions.

Producers are expected to manage risk within the farm enterprise in a sound and cost efficient manner. In so doing, they assume a share of the risk and its associated costs. Producer participation on crop insurance boards, agencies and commissions contribute to the effective management of crop insurance programs.

Technical Elements of Crop Insurance

The **production guarantee** provided by crop insurance is derived from historical average yields for an individual or geographic area and the percentage level of coverage. This protection level, which includes a built-in deductible, is deemed to approximate what a producer can reasonably expect to produce over time with confidence and within acceptable limits of risk. Because yields vary in line with changes in soil productivity, natural perils, and management, a moving average has been used to calculate average yields. Coverage levels reflect the production risk of crops and areas.

The **cost of protection (or premiums)** is established using the average yield, the coverage level, the unit price (the per unit value of production) and the premium rate. The premium rate is based on the probability of yield loss.

Indemnities are paid to insured producers when the actual yield for a crop is below the production guarantee due to natural perils and are a function of average yields, coverage levels and unit prices.

Additional features are provided at extra cost to the basic production loss protection. An example is hail spot loss.

Statistical profile of crop insurance (1988)

In 1988, the total insured value of production was $3.5 billion. The total acreage insured was 44 million acres. A total of $393 million, including $197 million in federal contributions, were paid in premium charges and farmers received $850 million in indemnities. Administration costs totalled $53 million. A more complete statistical description is provided in the discussion paper.

4. SUMMARY OF ISSUES

Provincial reviews of producer needs, input from provincial crop insurance boards, and recommendations from the Federal-Provincial Review Committee, have led to the identification of issues that suggest the need for improvements to the Crop Insurance Program.

General issues

- The Crop Insurance Act and Regulations have been criticized for not being specific enough in laying out the terms and conditions under which the federal government will support funding for provincial crop insurance plans. The lack of specificity has led to varying provincial interpretations of what is permissible and has resulted in inconsistencies between provinces and commodities.

- To date, crop insurance has existed as an independent program designed to help farmers manage production or yield risk. Other programs have been developed to help farmers handle market related income instability and to develop new crops. While many alternatives are under discussion in the ongoing examination of all farm safety nets (e.g., Grains 2000), it is likely that any substantive changes to the current orientation of programs will require considerable further study. It would appear reasonable, therefore, to regard Crop Insurance as a discrete program for purposes of this review.

  To the extent possible, existing stabilization programs and crop insurance should complement each other. In this regard, an examination of links to other support programs suggests that a high degree of integration currently exists but that some gaps remain which might best be resolved through changes in price stabilization or development programs.

- The jurisdictional, financial and functional responsibilities of the provinces and the federal government are not clearly defined in the legislation or in the federal-provincial agreements.

- The federal government is not satisfied with the financial contribution of most provinces to program costs and wishes to renegotiate cost-sharing arrangements. Even taking into account the higher percentage share of costs assumed by Québec and Newfoundland, the aggregate distribution of costs nationally is 45% federal, 10% provincial and 45% producers. Some discussions leading to new arrangements are currently underway.

- Although special assistance has, at times, been seen to be necessary, the federal and provincial governments recognize that ad hoc assistance can seriously undermine crop insurance. Crop insurance is perceived by some producers as inadequate compensation for major, widespread or successive disasters. Concerns centre around the number of uninsured farmers and the lack of affordable insurance for the replacement value of lost yields. However, it is generally agreed among producers and governments that an improved crop insurance program should be the principal vehicle for responding to producer needs for disaster coverage.

- Crop insurance may mask environmental signals in some areas and postpone necessary decisions by farmers to adjust to changing economic, agronomic or climatic conditions. In some instances, the program may actually work against the adoption of better soil conservation practises by supporting crop production on marginal land.

- Government subsidization of crop insurance premiums is an important factor to consider in the context of negotiations on the Free Trade Agreement with the United States and the General Agreement on Tariffs and Trade (GATT). Decisions on the future of crop insurance, which are inconsistent with the spirit of these negotiations could leave Canada open to threats of countervail.

Yield determination

- The Crop Insurance Act does not permit adjustments to average yields. In spite of this restriction, precedents have been established for particular crops in some provinces where adjustments have been made for disaster years, productivity trends and other situations. It should be recognized that the method and specific techniques used to determine the expected production level for crop insurance purposes requires a balance between accuracy (often defined as being responsive to and individual producer's experience) and stability (maintaining the protection level following a disaster year). The relative importance of each of these objectives may vary by province, area and crop.

- Producers are concerned that major and successive losses can have a significant impact on their yield calculations. Also, current methodology cannot accurately reflect increased productivity resulting from technological improvements over the long term. To deal with these problems, alternate statistical methodologies could be explored so that yield levels determined for insurance purposes represent an accurate expectation of probable yields.

- While problems of stability exist with individual coverage, there have also been difficulties with coverage adjustment mechanisms, under the area average approach, in accurately reflecting an individual's higher or lower productivity.

- While the average yields fall following crop disasters, this is further exacerbated in some provinces where coverage levels also decrease.

- Average yield methods do not accurately reflect production capability for perennial plants which require several years to reach their full yield potential.

- The definitions of risk areas, soil productivity ratings and differentials between summer-fallow and stubble yields are lacking in accuracy.

- Some producers have indicated a desire to recognize the potential yield of acres grown but not harvested.

Coverage level

- Producers have requested that maximum allowable coverage levels be increased beyond the current 80% limit. It may not be possible for provinces to offer higher coverage levels outside of low risk areas because of high premium costs.

- Previous criteria used in 1959 and 1966 to establish the maximum coverage levels in the Federal Act may require changes. Statistical determination of risk might provide a more accurate basis for justifying coverage levels.

- If coverage levels are increased in an area or province, there is a greater risk that crop insurance will provide some individuals with a level of protection that will cover management-related problems or errors rather than natural hazards. Additional administrative controls may therefore be necessary in some provinces to reduce the risk of abuse.

Unit prices

- Problems occur when realized market prices exceed or are below crop insurance unit prices for a commodity. Under the Agricultural Stabilization Act producers cannot receive deficiency payments for lost production.

- The relative merits of basing unit prices on market value as opposed to incurred production costs must also be examined in the context of program objectives.

Risk splitting

- Offsetting production means that, even though a severe loss may have occurred in one location on the farm, an indemnity payment results only when there is a shortfall between the crop's total production and the total insured level of production. Departures from the offsetting production principle, known as risk splitting, have been used to enhance crop insurance protection against partial crop losses. This has the effect of increasing program costs. Crop insurance regulations currently do not provide guidance as to the forms of risk splitting which might be allowed.

- Hail spot loss provisions which are currently available in some provinces offer a form of double compensation.

- Some farmers want to make crop insurance flexible so that programs are developed for specific perils paid on a spot loss basis.

New or experimental crops

- Crop insurance has traditionally insured commercially viable field-grown crops. As producers and governments attempt to diversify agricultural production, new insurance plan requests are often made for crops with little or no commercial production records and for a limited number of producers. Because there is insufficient crop data on which to design a self-sustaining, actuarially sound insurance plan, as required by the Act, these crops and new producers in some cases have not been eligible for protection.

Forage insurance

- Although substantive changes were made for 1989, forage insurance in most provinces still does not adequately address regional and on-farm variations in forage production. Such programs do not appear to be flexible enough to meet the needs of individual farmers and still remain affordable.

Self-sustainability and Program administration

The Federal Crop Insurance Act requires that crop insurance programs be self-sustaining over the long term. The concept entails both accurate risk determination and program administration which is consistent with program objectives. Inadequate program administration will generally result in premium rates higher than they should be. There is a need to explore improvements to program design, delivery and control which could help to:

- Better promote the concept and features of crop insurance;

- Increase participation;

- Ensure successful producers do not subsidize unsuccessful ones;

- Avoid adverse selection (a disproportionately high percentage of high risk producers);

- Ensure that program provisions meet objectives across commodities and regions;

- Ensure adequate funding for administration;

- Establish sound measures of program performance and effectiveness;
- Better share program information and experience.
- Ensure accuracy and consistency in underwriting and claim adjustment; and
- Minimize real/perceived abuse and ensure compliance with federal-provincial agreements.

5. A FRAMEWORK FOR DISCUSSING OPTIONS

Potential Crop Insurance Program improvements are discussed within the following framework:

- Changes which could be made within existing legislation;
- Incremental changes to existing programs requiring legislative amendment;
- A new look involving major structural changes to the program, also requiring legislative amendment;
- A general section on administrative improvements.

> At this stage, potential changes are put forward as ideas for discussion. Quantitative research will be required before the feasibility of many potential design features is finally determined.
>
> The possibilities raised for changes to program design and cost sharing do not represent commitments or positions on the part of the federal or provincial governments.

1. Changes within existing legislation

The majority of possible changes under the existing Crop Insurance Act involve administrative improvements although some program design improvements can also be considered. Many of these changes could be included in amendments to Crop Insurance Regulations and/or provided for in federal-provincial agreements. The alternate form of cost-sharing can also be accommodated. It is recognized that some of those changes may in fact be underway in some provinces.

The possible changes include:

- Revising risk areas (i.e. more homogeneous in terms of production risk) and productivity indices (i.e., to reflect variability) and improving technical basis of area average coverage.

- Moving towards individual coverage where feasible. Improvements in methodologies for establishing yields and underwriting insurance contracts would be required.

- Linking production losses to market value by allowing unit prices to "float" until a specified date at which time values would be set for purposes of indemnity calculations and premiums adjusted accordingly.

  Tying stabilization programs to crop insurance so that a producer can be assured of stabilization payments on his lost crops if market prices exhibit a significant year to year decrease. Currently WGSA includes crop insurance payments whereas ASA does not.

- Developing consistent standards and criteria governing the use of methodologies for the determination of unit prices such as those relating to market prices and costs of production.

- Developing a consistent approach for the various forms of risk-splitting (e.g., variety insurance, additional spot-loss perils, single peril coverage) that would be eligible for contributions, and ensuring that any additional benefits are administratively feasible, actuarially sound and free from adverse selection (i.e., a disproportionately high percentage of high risk producers) or abuse.

- Revising rate setting methodology based on statistically and actuarially sound parameters, where required.

- Developing clear guidelines for handling minor and new crops.

- Improving the forage/feed security program by developing better methods for determining individual yields.

- Offering a combined insurance program (all crops under one contract, as opposed to each crop insured separately) could result in higher levels of coverage (up to 80%) being provided at lower premium rates. While this would result in producers having to absorb a larger share of the minor crop losses, it would ensure better protection against severe crop losses. Specifically, this would involve offsetting production guarantees at the farm level.

- Giving consideration to the adoption of the alternate formula specified in the existing Act. This formula provides for producer contributions of 50% of premiums and federal and provincial shares of 25% respectively, with administrative costs shared equally between the two levels of government. This change would involve all provinces except Quebec and Newfoundland who already cost share on the basis of this alternate formula.

2. Incremental changes requiring legislative amendment

Certain changes cannot be considered without changing the Act. These additional changes could be combined with those identified above to form a comprehensive improvement package.

- Adjustments or alternatives to the simple mean (average) should be offered in order to better approximate producers' productive capability. This departure from the current legislative requirement to use an unadjusted mean would be subject to the application of statistically valid methodology and criteria.

- Coverage levels which are currently limited in the Act to 80% of a producer's average yield might be based on statistical measures of risk up to a predetermined maximum (perhaps 90%). Criteria of actuarial soundness and affordability would be important considerations in setting coverage levels.

- Business-interruption insurance might be considered for perennial crops (i.e., fruit trees) where income is lost for several years following destruction of the plant.

- Several options for cost sharing could be examined, including; using the alternate formula in the Crop Insurance Act (described in 1 above), having provinces assume the total government share of premium increases resulting from program improvements, or some other percentage breakdown.

3. A new look

The previous sections have dealt with improvements to existing programs, both without and with amending legislation, but omitting any major changes to the overall structure of crop insurance. This part of the discussion explores a different approach to program design.

Program design changes

- The general concept underlying a possible new look is that a basic low cost insurance component would serve as the foundation of the program. This would constitute the entry level to crop insurance. Enhancements or enriched coverage features would be offered to the producer as options. The basic coverage package

would involve a high level of government subsidy to keep producer costs down, whereas optional features would be paid for in the main by producers, with government subsidies kept at a minimum. Overall, government subsidization would likely remain relatively unchanged from its present level.

In order to satisfy the criteria of basic coverage combined with lower cost, the entry level component could operate as follows:

Basic coverage package

- Yields would be established using individual average yields or area average yields adjusted for individual productive capability, including changes in productivity resulting from technological improvements.

- Coverage levels would differ among crops subject to a predetermined maximum (perhaps 90%) reflecting valid statistical measures of risk (yield variability) and related premium charges.

- Unit price methodologies would have to be determined in the context of program objectives. Approaches which might be considered are: projected or floating market price and cost of production.

- Loss adjustment would reflect the principle of full offsetting production linked to the total farm or crop (Clear definitions of farm and crop would be required.)

Optional enhancement features

Several enhancements or enrichments could be made available to producers on an optional basis at incremental cost which would reflect the added levels of risk and coverage. These could include:

- Spot loss provisions for specific perils such as hail, tornado, etc;

- Separate coverage for crop varieties;

- Reseeding or unseeded acreage benefits;

- Different coverage for irrigated and non-irrigated fields;

- Coverage levels above those justified in the basic coverage package.

Observations

The object of the basic coverage component would be to offer producers the highest statistically justifiable (yet to be determined) level of protection at the lowest possible cost, within the confines of fundamental and limiting crop insurance principles (e.g., offsetting production). Combined with optional add-ons, the complete package would offer the producer a comprehensive and flexible approach to planning a crop insurance portfolio.

The question of individual field or quarter-section coverage was examined by the Federal-Provincial Review Committee. It was felt by the majority of officials that this feature might entail excessive premium and administrative costs and high potential for abuse.

4. Administrative improvements

Administrative improvements are an important pillar in strengthening crop insurance for the future and must be considered irrespective of the improvement package selected. Program design enhancements will fail if they are not supported by sound administration. Several improvements in program administration are possible. These include:

- Better producer education and marketing of crop insurance. In this area, there is scope for collaborative efforts involving all provinces as well as the federal government;
- Improved abuse control under area average programs through increased monitoring, stricter enforcement of penalties and other measures listed earlier;
- Improved control over marginal lands, wet lands, fragile soils;
- Increased effectiveness regarding inspection and claim processing;
- More resources devoted to actuarial analysis, research, policy development; more frequent program evaluations including in-depth economic analysis of program impacts, strengths and weaknesses.
- More consistent and streamlined federal-provincial administrative procedures including amendments to agreements; and
- More frequent and stringent program audits respecting the terms of federal-provincial agreements.